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U. S. DEPARTMENT OF AGRICULTURE  
WAR FOOD ADMINISTRATION

Farming in Wartime

July 12, 1944

The nation's farmers met unprecedented wartime demands with record-breaking production. The output of the country's farms was large enough to make the millions of men and women in our armed forces the best fed and clothed in the world, to enable the United States to send huge food shipments to its allies, and at the same time to give civilians during 1941, 1942 and 1943 the best diet level they ever had enjoyed in any three-year period.

During the war period, prices of most farm products have been favorable, and 1943 farm income was the highest on record. Farm purchasing power also gained, as national price control efforts held the line on most things farmers buy. In contrast to the rise in mortgage debt that marked farm prosperity in the first world war, farmers in the second world war used part of their improved incomes to reduce their long-term debt substantially. They also bought war bonds heavily -- 1.2 billion dollars worth in 1943.

Farmers achieved their tremendous war production with far less permanent damage to the soil than that which marked the smaller wartime output of 1917 and 1918. The agricultural effort of the second world war was more closely geared to the total national economy than in the earlier struggle. Production goals for various products were established in the light of available manpower, materials, machinery and land, as well as military and civilian requirements. Agriculture's claims to essentials of production were presented in the national councils. The War Food Administration gave general direction and assistance to wartime production, processing and distribution of essential farm products. National farm programs which had helped farmers pull out of the slump of the early '30's proved flexible enough to aid in stimulating wartime production and distribution. Through existing representative committees, farmers themselves had a large voice in creating and administering farm policies.

The wartime farm programs, naturally, were not perfect, either in design or execution. Rough spots developed in both production and marketing. But despite these imperfections farmers, in the face of great difficulties, met unheard of demands for war production and at the same time strengthened their economic position.

PRODUCTION

In 1943 total agricultural production in the United States was 28 percent above the pre-war average for 1935-39 and 45 percent above the average of the two years of America's participation in the first world war, 1917-18. Food production in 1943 was 32 percent above the average for the five pre-war years and 53 percent above the 1917-18 average. Annual corn production which averaged 2.7 billion bushels in 1917 and 1918, jumped to 3.1 billion in 1943; hog production nearly doubled, going from less than 14 billion to nearly 26 billion pounds live weight; milk production showed a large increase, jumping from about 70 billion to 118 billion pounds, while egg production went from less than 28 billion eggs to more than 54 billion.

Requirements for armed forces, lend-lease and other exports have taken an increasing proportion of United States food production: 6 percent in 1941, 15 percent in 1942, 21 percent in 1943 and an estimated 25 percent in 1944.

## CIVILIAN CONSUMPTION

In addition to meeting those record war needs, American farmers have produced enough to feed civilians during this war better than in any other period in our history. Per capita civilian consumption of principal foods indicated for 1944 compares with pre-war and last year as follows:

Commodity or Group	Lbs. in 1944	Percent of 1935-39 average	Percent of 1943
Meats	145	115	106
Eggs	44	118	103
Fluid Milk & Cream	396	116	98
Fats and Oils	46	96	100
Fresh Citrus Fruits	65	133	109
Fresh Vegetables	242	103	104
Sugar	81	84	104
Wheat (flour)	158	102	100

## PRICES

Farm prices have been generally favorable. The 1943 index of all farm prices was 92 percent above the 1910-14 average, 79 percent above the average for 1935-39, 182 percent above 1932 and 1 percent above 1917-18. At the same time the line has been held reasonably well on the prices of things farmers buy. As a result the prices of most farm commodities were above parity in 1943. The average of all farm prices during the year was 117 percent of parity. These are some of the actual 1943 prices received by farmers, compared with prices for other years, and with parity:

	Dollars	% of 1935-39 Average	% of 1932	% of 1917-18	% of Parity
Hogs (cwt)	\$13.70	165	410	91	116
Cattle (cwt)	11.80	181	278	128	138
Corn (bu)	1.12	171	351	75	98
Milk (cwt)	3.12	172	244	116	120
Eggs (doz)	.370	178	261	109	110
Chickens (lb)	.244	162	207	126	131
Wheat (bu)	1.35	166	353	66	88
Cotton (lb)	.198	200	304	71	98
Tobacco (lb)	.405	208	386	-	-

## INCOME

Since those favorable prices were being received for a record volume of production, cash returns to farmers have set new high levels. Cash receipts from the sale of farm products in 1943 reached the all-time record of \$19,252,173,000, or 141 percent above the 1935-39 pre-war average, 306 percent above the 1932 low and 59 percent above the 1917-18 average in the First World War.



In addition, government payments of \$672,080,000 brought 1943 cash returns of farmers to a total of \$19,924,253,000. Considering both cash received and prices paid by farmers, their buying power in 1943 was nearly twice as great as for the five years before the war, more than three times as great as in 1932, and three-fifths more than in 1917 and 1918 when there was no broad national program of price control.

#### MORTGAGE INDEBTEDNESS

During the first World War and immediately afterwards, farm mortgage debt amounted to an all-time record, much of it in land purchased at inflated values. This burden resulted in foreclosures and other distress afterwards. During the present war the long-term debt has declined steadily. The mortgage debt, which had stood at 5.8 billion dollars at the start of 1917, rose to 6.5 billion a year later and kept going up to a peak of 10.8 billion dollars in 1923. In this war the farm mortgage debt was 6.5 billion dollars on January 1, 1942; dropped to 6.1 billion a year later, and stood at 5.6 billion at the start of 1944.

The number of farm foreclosures and other forced sales in 1943 was less than a quarter of the average of the 1920's, and less than one-twelfth of the record number in 1932.

In 1943 pre-payments in advance of maturity on long-term farm mortgage indebtedness held by the Federal Land Bank and the Federal Farm Mortgage Corporation amounted to \$242,448,000.

#### SHORT TERM CREDIT

While long-term farm debt has been reduced, short term loans for war production have been expanded both to individual farmers and to farmer cooperatives.

Production credit associations supervised by the Farm Credit Administration last year made 230,735 loans to farmers totalling \$501,211,688. Loans to farmer cooperatives last year totalled \$404,998,320.

In addition, funds of the Regional Agricultural Credit Corporation in the FCA system were used to make 108,820 loans to farmers amounting to \$64,597,606.

#### AID TO SMALL FARMERS: FSA

Many small farmers who in the past had scarcely been able to subsist are now contributing substantially to war production with the aid of the Farm Security Administration.

From 1935 through the end of 1943, rehabilitation loans totalling \$809,882,606 were made by FSA to aid small farmers. Altogether, rehabilitation loans have been made to 961,129 farmers who were unable to receive adequate credit from other sources.

Farmers have repaid 86.7 percent of the principal due on these loans.

In addition, more than 35,000 farmers have been enabled to purchase farms through FSA farm ownership loans. At the beginning of 1944 they had paid 99.1 percent of the amount due. Since most repayment schedules call for proportionally larger payments in years of good income, the amount repaid is 48 percent above what would have been due on a fixed annual basis.

In connection with their loans, FSA borrowers have been helped in working out complete farm and home plans which have both increased their income and boosted war food production.

Here are some examples of how farmers in FSA's rehabilitation program have contributed to the increased output of vital war food products:

	Amount Produced 1943	% Increase Over 1942
Soybeans	5,049,187 bushels	37
Peanuts	156,776,386 pounds	22
Dry Beans & Black-eyed Peas	84,184,996 pounds	15
Irish Potatoes	20,996,840 bushels	65
Sweet Potatoes	5,972,736 bushels	14

	Amount Sold 1943 (Pounds are live weight)	% Increase Over 1942
Hogs	532,361,529 pounds	56
Cattle & Calves	432,360,682 pounds	43
Sheep	62,777,820 pounds	30
Milk	571,116,008 gallons	18
Chickens	66,069,728 pounds	47
Eggs	126,333,312 dozens	32

#### SOIL CONSERVATION: SCS

Aided by the Soil Conservation Service, complete farm plans to make the best possible use of every acre had been worked out by the end of 1943 for more than 314,000 farmers covering 104,000,000 acres. On most of this land intensive soil and water conservation practices are carried out through Soil Conservation Districts. In addition to holding soil and moisture, these practices increase crop yields by 20 percent or more on the average.

#### SOIL CONSERVATION, AAA

Preliminary figures show that the 1943 Agricultural Conservation Program conducted by the elected farmer committeemen of AAA included 403,000,000 acres, or 88 percent of the nation's cropland. This program resulted in the following important conservation practices for 1943.

#### Application of materials:

(There may be some duplication in the numbers of farms, since a material may be applied in more than one form, and if so is counted as a separate practice.)

20% superphosphate or equivalent	1,854,877 tons on 1,259,627 farms
Limestone or equivalent	18,783,858 tons on 968,637 farms
Reseeding or partial seeding depleted pastures	14,732,368 pounds on 1,410,840 acres of 93,809 farms

#### Erosion Control

Strip cropping on contour, contour farming intertilled crops & contour seeding close grown crops	15,243,084 acres on 276,392 farms
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Terracing	294,694,000 linear feed (55,800 miles) on 40,132 farms
<u>Green manure and cover crops</u>	23,946,962 acres on 1,815,397 farms
<u>Harvesting hayseed &amp; legume seed</u>	3,105,300 acres on 308,098 farms

#### RURAL ELECTRIFICATION:

Electric power on farms played a significant part in the nation's record war production. From the time the Rural Electrification Administration was created in 1935 until the end of 1943, more than \$480,000,000 in loans were made to provide electric power to American farmers. Most of these loans were made to farmer cooperatives.

R.E.A. loans have been used to construct about 400,000 miles of distribution lines serving 1,104,183 rural consumers.

At the end of 1943 borrowers were more than \$15,000,000 ahead of schedule in paying their loans.

During the period 1935 through 1943 the proportion of farms having electric service, from REA-financed or other sources, jumped from 10.4 to 40.4 percent.

#### PRICE SUPPORTS AND MARKETING AIDS

In spite of the tremendous wartime requirements, some local or seasonal surpluses have developed. With the uncertainties of war and weather the only way to make sure of having enough is sometimes having too much. In some cases farmers have exceeded the total production goals, and in others unexpected shifts in wartime needs have put actual requirements somewhat out of line with goals. Government purchase and loan programs have protected farm prices in such instances.

Crop loan and purchase machinery will be available for use after the war. Congress has provided for farm price supports for two years from the January 1 after hostilities cease.

#### Crop Loans

Crop loans in the early part of the past decade were made principally for the purpose of supplying farmers with ready cash for products not immediately needed in marketing channels. The ever-normal granary thus accumulated was available to meet rapidly expanding needs at the start of the war. Reserves of feed grains were of particular importance in making possible the rapid increase in meat and milk production. After the war began, the loan policy was continued as a method of price support and an aid to orderly marketing. From 1933 to the end of 1943 Commodity Credit Corporation loans totalled \$3,898,642,000. More than a third of that amount was loaned during 1942 and 1943, as part of the wartime price support program. The average loaned annually during the two war years is more than twice the yearly average for the nine years before the war. The total loaned since 1933 included \$1,677,850,000 on 27,464,000 bales of cotton, \$1,343,889,000 on 1,430,987,000 bushels of wheat, and \$667,735,000 on 1,182,725,000 bushels of corn. Of those loan stocks, 4,424,000 bales of cotton, 150,839,000 bushels of wheat, and 2,398,000 bushels of corn still were under loan at the end of 1943. During the defense and war period, a number of crops of special wartime importance were added to the price support program -- flaxseed and soybeans in 1941; grain sorghums in 1940; dry beans, dry peas, hay and pasture seeds, and potatoes in 1943.

## PURCHASE PROGRAMS

When war broke out in Europe, government purchase of farm products was well established as a marketing aid and means of surplus disposal. The machinery was adapted to carry out a program of consolidated wartime purchase of farm products for military and lend lease requirements as well as remaining domestic requirements and to gear those operations into price support policies. Price support programs, designed to maintain farm prices at given average levels over considerable periods of time, also have given prices a large measure of protection during temporary market gluts.

Egg production, for example, ran nearly 7 million cases higher in the first 6 months of 1944 than for the corresponding period last year. From January through June of this year, the War Food Administration used more than \$55,000,000 in buying more than 6 million cases of eggs. Most of the eggs were to be sold back into trade channels later, when the seasonal decline in egg production sets in. Purchase of 180 million pounds of dried egg powder --- equalling 18 million cases of shell eggs -- for lend lease use also helped support prices during the first six months of 1944.

During 1943, WFA bought nearly 12 thousand carloads of Irish potatoes, at a cost slightly over \$3,000,000. Up to July 1, 1944 about 4,000 had been bought for slightly more than \$2,000,000 in a continuation of the price support program.

Although the Government cannot buy live hogs, purchases of pork and pork products have had a large part in protecting prices to farmers. All Government purchases have been made at prices that reflect support price levels to farmers. Packers also were placed under a licensing program requiring them to pay at least support prices for specified weights and grades of hogs. During 1943 the War Food Administration bought 1,829,192,655 pounds of pork for \$543,606,910. For the first 6 months of 1944, 917,327,723 pounds were bought at a cost of \$220,711,628..

Programs of direct price support to growers are in effect for raisins, dried apricots, peaches, pears and prunes. Also support prices have been announced for the important canning crops, and for cabbage for kraut. Growers who contract with certified processors are assured of receiving the full support price. Some of these programs involve government payments to processors to enable them to keep their products under price ceilings and still pay support prices to growers.

### Milk Production Payments

In another program of this type, dairy farmers themselves receive government payments to enable them to pay increased production costs without raising the price of milk. Dairy payments have totalled \$150,180,000 since the program was begun in October, 1943.

### School Lunch Program

During the 1943-44 school year, school lunch programs bought healthful diets to more than 4 million children in 31,000 schools throughout the country. The programs were locally sponsored, with the sponsoring organization contributing half or more of the expenses in each State. WFA contributions took the form of either cash reimbursement or distribution of food bought through the price support program. Last April, the peak month for the year, 4,445,300 children were fed, WFA expenditures for the year were about \$38,200,000.



## FARM MANPOWER

As farm workers flocked into the armed services and jobs in war industries, manpower became one of the most pressing problems of farm production. Supplementing a series of steps in national policy, culminating in existing Selective Service exemptions for many essential farmers and farm workers, agencies of the Department of Agriculture administered or helped administer programs for recruiting, transporting and placing farm labor. During the last seven months of 1943, 4,299,583 placements of farm labor, involving about 2,100,000 individual workers, were made throughout the country under the supervision of the Federal-State Extension Service. About 66,000 of the workers placed throughout the country in 1943 were farm workers brought by the W.F.A. Office of Labor from other countries. About 100,000 farm workers were being brought by W.F.A. from other countries in 1944.

## RESEARCH PROGRAMS

Years of scientific research in the U. S. Department of Agriculture and the State agricultural experiment stations had much to do with the remarkable production records made by American agriculture in this war. If it were not for the technological discoveries of the scientists, we would not now be producing almost one-half more than we did in the last war with 4,000,000 fewer farmers to do the work and very little more acreage in crops.

Scientific research is responsible for better crops, better livestock, better machinery, better fertilizers and better ways of using them, better soil management practices, better feeding, better disease and insect control and better methods of handling and processing many agricultural products.

Ten years ago, for example, hybrid corn was very little known or used. By 1943 it had practically taken over the Corn Belt. It has been estimated that the use of hybrid corn increased our production by about half a billion bushels in a single year over what would have been possible with open-pollinated varieties.

At the start of 1934, our average egg production was 89 eggs per hen. By 1943, as a result of several years' operation of a coordinated program of scientific poultry improvement, it had risen to 112 eggs per hen.

Scientists in the Agricultural Research Administration have also had to work on many special problems for the armed services. For example, the production of great quantities of dehydrated foods was made technically possible through research; methods were discovered to produce enough of the new drug penicillin to meet all the needs of our soldiers; and the insecticide DDT was found to be a remarkable weapon against some of the deadly insects that plague armies.

The Forest Products Laboratory maintained by the Forest Service at Madison, Wisconsin, has concentrated on providing research and technical services required for selection and efficient utilization of forest products for war, including work on problems of shipping containers for munitions, equipment and food supplies, wood aircraft construction, production of alcohol and high protein feeds from wood waste, and many other problems. Some of the new Laboratory developments in wood processing and chemical conversion promise important new uses and markets for timber after the war.

